

**A FIBER TRIM METHOD AND APPARATUS FOR AN
INTEGRATED OPTICAL FIBER PROCESSING SYSTEM**

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation application under 37 C.F.R. § 1.53(b) of United States patent application serial number 10/038,093, filed January 4, 2002, *now U.S. Patent 6,628,888*

BACKGROUND OF THE INVENTION

Field of the Invention

[0002] The invention generally relates to a method and apparatus for assembling optical subsystems or optical interconnections.

Background of the Related Art

[0003] In the manufacture of fiber optic communication systems, optical interconnects and other components are assembled to form various interconnected optical subsystems. Typically, optical components are integrated into optical subsystems that collectively create, for example, an optical switch. As the communication industry's need for optical communication bandwidth has increased, the ability for interconnect surfaces to provide a precise connection between optical subsystems is becoming critical, especially with regard to optical transmission modes that use multiple wavelengths of light to transmit information, such as Dense Wavelength Division Multiplexing (DWDM), for example. DWDM is a fiber-optic transmission technique that employs multiple light wavelengths to transmit data in a parallel-by-bit or serial-by-character format. DWDM is a major component of most optical networks that allows the transmission of e-mail, video, multimedia, data, voice—carried in Internet protocol (IP), asynchronous transfer mode (ATM), and synchronous optical network/synchronous digital hierarchy (SONET/SDH), respectively, over fiber optic communication systems.

[0004] Generally, fiber optic interconnections include two individual optical terminations mated together to provide a unitary and continuous optical path therethrough. Conventionally, to form an optical interconnect interface, fiber optic cables are terminated into an optical interconnection called a ferrule that is adapted to connect or mate the optical cables together. Ideally, optical interconnects, such as ferrules, are manufactured with precisely polished and dimensionally optimized